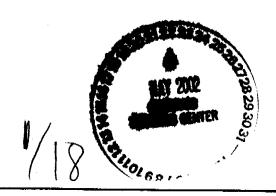
# BUILDING 865 AND 883 PROJECT SCOPING MEETING

June 5, 2001



ADMIN RECORD

B883-A-000023

#### **BUILDING 865 FACILITY DESCRIPTION**

Building 865 is supported by several other buildings, which are included in this report. Building 863 is an electrical substation for the extrusion press. Building 865A is a process-cooling tower used to supply chilled water for the former process in Building 865. Building 866 houses the process waste collection and transfer system for Building 865. Building 867 and 868 serve as the exhaust plenums for Building 865.

Building 865 consists of a large, high bay machine shop in the south and office/laboratory areas on the north. The interior wall along Column Line C separates the high bay area from the remainder of the building. The high bay area is a Contaminated Area (CA) because of contamination from previous operations and processes involving uranium. All beryllium and uranium processing has ceased.

Building 865 is built on a concrete slab on grade, and there is no basement, although there are three sump pits that extend below grade. The exterior walls are made of upended pre-cast concrete T-beams. The roof is also pre-cast concrete with polyurethane foam insulation and neoprene topping. The interior walls are pre-cast concrete, concrete block, or gypsum board.

There are dropped acoustical tile ceilings in the office areas. The building has approximately 40,000 square feet of floor space, including the annex on the east. The building was originally constructed in 1970.

Building 865 is provided with typical safety features, including fire suppression throughout, life safety/disaster warning system, fire extinguishers, fire pull boxes, eyewash stations, emergency showers, and battery-powered emergency lighting systems.

The Building 865A cooling tower provides dedicated, closed loop chilled water to the Building 865 evaporative cooler for air conditioning and process cooling water heat exchanger in Room 140. The cooling tower is an evaporative-cooling type with recirculating water sprays over the closed loop coils. The cooling tower is mounted on a concrete pad.



# Facility Group 26 - Building 865

Description: Facility Group 26 consists of:

B863: Electrical transformer/ewitch gear
B865: Materials and process B865: Materials and process development laboratory

5C865: Cooling tower

B866: Process waster transfer for B865

B867: Filter plenum B868: Filter plenum Tank 010: Diesel storage Tank 011: Diesel storage

-Tank 026: System fire protection

## Technical Approach

Building 865 will be closed as a Type 2 Facility using a project specific DPP. Buildings 866, 867, 868 will be closed as Type 2 facilities using standard RSOPs. The remaining facilities will be closed as Type 1 facilities. The closure strategy is to remove Building 865, the other facilities, and the tanks by working several decommissioning tasks in parallel.

Authorization Basis: Building 865 is currently operating under the Site-Wide SAR. Although the current AB is sufficient to perform a large number of decommissioning activities, it will require revision in order to perform predemolition structural modifications, address scenarios involving ducts and plenums, and address temporary conditions and systems. The current plan is to use the RSOPs and the DPP to cover decommissioning activities. For activities not covered by a RSOP, a HASP will be prepared.

Not all

Personnel relocation: Personnel relocation is not an issue because only operations staffs are located in Building 865. Temporary shower and locker rooms may be provided during D&D.

Security Requirements: Once all classified materials are verified has having been removed, security control requirements will be eliminated. This will allow the use of non-cleared personnel for hazard elimination, equipment removal, and demolition.

Decontamination: Interior surfaces of large equipment will be inspected to assure that there is no bulk uranium or other material present. No decontamination of massive equipment will be attempted. Fixatives will be applied to external surfaces and easily accessible interior surfaces prior to packaging for shipment. Fogs and fixatives will be applied to smaller pieces of equipment for contamination control during removal, size reduction and packaging operations. Decontamination of structures, including facility overheads, will be accomplished using standard decontamination processes.

Demolition: The demolition strategy for Building 865 is to use a fixed price subcontractor. The remaining Type 2 facilities will be surveyed decontaminated



as required, and demolished using standard industrial techniques. Above ground tanks will be sold for reuse by a fixed-price demolition subcontractor or demolished if not saleable. A fixed price subcontractor, using standard industrial techniques, will demolish miscellaneous structures.

#### Hazards

Hazards associated with the closure of Facility Group include industrial hazards, and hazards associated with uranium contamination.

## **Assumptions**

Building 865 will be closed using a project specific DPP.

## Project Risks

No specific project risks have been identified for the tanks and miscellaneous structures. Project risks for Building 865 will be provided in a separate Hazards Assessment Analysis after the RLC report is complete.

#### Schedule

Closure activities for Facility Group 26 will be planned and executed, based on the Site's 05 closure plan. Attachment 3 provides the summary schedule for closure.

# Opportunities for Acceleration

The baseline schedule is to be completed with landlord and maintenance support activities in the 4<sup>th</sup> quarter of FY03. There have been many tasks completed to date that support the acceleration of cold closure of Group 26 by 12 to 16 months. The project team is working to be complete no later than the end of the 4<sup>th</sup> quarter FY01.

Stabilization and hazards removal started in FY99 and is currently scheduled to be complete by the end of the 3<sup>rd</sup> quarter FY01. This is an acceleration of 24 months.

The baseline schedule for Group 26 to initiate decommissioning activities is in the 3<sup>rd</sup> quarter FY02, and complete decommissioning by the end of the 4<sup>th</sup> quarter in FY05. The working schedule shows starting decommissioning in the 1<sup>st</sup> quarter FY02 and completing in the 4<sup>th</sup> quarter of FY04. This is an acceleration of decommissioning activities of 2 years if funding and resources are available.



#### **BUILDING 883 OPERATING HISTORY AND PHYSICAL DESCRIPTION**

Building 883, also known as the Uranium Rolling and Forming Facility, is a two-story, steel-framed building with a partial basement. Building 883 was constructed in 1957 as part of a major plant expansion to machine enriched and depleted uranium parts. Enriched uranium operations in Building 883 were discontinued between 1965-1966 when all enriched uranium work was moved to Oakridge. Building 883 continued to work on special projects, such as the manufacturing of armor plating for the M1A1 tanks, until the late 1980s. Building 883 also machined other non-fissile metals such as beryllium, tungsten, stainless steel, aluminum and vanadium, which were part of plutonium weapons production.

Process operations conducted in Building 883 included cleaning and heating materials prior to shaping, rolling the metal into sheets, cutting of blanks, forming into required shapes and cleaning after shaping. The sealed hollow shape of the components in the new weapon design required a significant amount of rolling and forming of both types of uranium.

Building 883 has three floors; the basement, the first floor and the second floor, which is sometimes, called the first floor mezzanine.

The basement area includes utility rooms (Rooms 6 and 7), a process waste collection area (Room 1), and a maintenance area (Room 3). Room 5 is the entrance to an underground tunnel, which leads to Building 881 and the air ventilation tunnels. The majority of the basement areas have had the furnishings, tools, and supplies removed from them.

The first floor consists of office space on the south side of the building and the process areas. The original exhaust air plenums and an electrical control room are also on the first floor. The processing areas in the first floor are referred to as "A-Side, B-Side, C-Side and Annex."

- The Annex section, which lies east of Column Line F, has equipment to support
  pressing and general maintenance operations. Room 104, contains a drum
  accumulation area for 30-to-55 gallon drums containing waste oils, solvents,
  uranium, beryllium and 1,1,1 trichloroethane.
- The A-Side, which lies between Column Lines D and F houses large machines for rolling, pressing, and shearing.
- The B-Side includes rolling, pressing, and shearing operations between Columns A and C.
- The C-Side, which is located west of Column line A, supported the manufacturing of depleted uranium armor plating for the M1A1 tanks. Later it was used for waste crate staging for shipments for low-level waste from the facility. Most of the C-side equipment has been removed.

The second floor areas include the inlet air plenum and associated blowers, heat exchangers, and coolers on the north (Rooms 201, 202, 203, and 207) and offices on



the south. These areas are not contaminated. The utility rooms have had all nonessential materials, equipment, and supplies removed as a hazard reduction activity. Similarly, the office areas have had all furnishings removed from them.

The supporting buildings to be included in the Building 883 Cluster are:

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883C – Cooling Tower
879 – Filter Plenum

- T883A – office trailer which was characterized as part of the Group B RLCR

T883B – office trailer which was characterized as part of the Group B RLCR

T883C – office trailer which was moved to Building 771 and renamed to T771Q

T883D – Restroom trailer remove
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The supporting exterior tanks associated with the Building 883 Cluster are:

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Tank 011 – Diesel tank (North of Building 883)

Tank 012 – Argon tank (North of Building 883)

Tank 016 – Foundation Sump Tank, Groundwater (southwest of corner of Building 883)

Tank 020 – Nitrie acid tank (West of Building 883, emptied August of 1995)

Tank 021 – Nitrie acid tank (West of Building 883, emptied August of 1995)

Tank 312 – Process west sump (UST 62 – Building 889)

Tank 313 – Process west sump (UST 63 – Building 889)
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The Building 883 support facilities and support tanks will be discussed below.

Much of the Building 883's process history and the physical descriptions were obtained from the Building 883 Historical Release Report (EG&G, 1994), the DRAFT Safety Analysis Report (EG&G, 1992), and the Facility Safety Analysis (RMRS, 1998). Other sources of information were Building WSRIC, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases.

#### PHYSICAL DESCRITION OF BUILDING 883

#### General Construction and Foundation

Building 883 is constructed of a steel frame and corrugated asbestos cement exterior panels and some concrete block exterior walls. The construction details of Building 883 and of the associated support structures are discussed in later sections.

Since its construction in 1957, four additions have been made to Building 883:

- 1958, Storage Building Addition, created additional space for storage and manufacturing. This addition was on the east-side of the original structure and is called the Annex.
- 1968, The Plenum Room Addition provided, space for air supply plenum room, and
  increase the low bay annex for additional storage and increased the size of the high
  bay area for additional manufacturing areas. This addition was built on the southeast
  side of the building.

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- 1972, The Valve House Addition, was built on the northeast corner of Building 883.
   This addition was built to house the main steam valves, which control the plansupplied steam to Building 883.
- 1985, The C-side addition to Building 883 was built to support manufacturing of armor plates containing depleted uranium for the M1A1 tanks. Machining of nonfissile metals continued until 1989.

The foundation of Building 883 consists of individual spread footings, concrete grade beans, and concrete wall footings. The individual spread footings vary in size from 6 feet square to 12 feet square and vary in thickness from 2 feet to 3 feet thick. The concrete grade beams around the periphery of the main building are approximately 10 inches thick and 6 feet deep. The concrete wall footings, are approximately 5 to 6 feet wide and 1 ½ feet thick.

## Facility Group 25 - Building 883

Description Facility Group 25 consists of:

B879: Filter plenum for B883

B883: Uranium rolling and forming facility

B883C: Cooling tower T883D: Rest rooms Tank 011: Diesel storage

Tank 016: Foundation sump tank Tank 020: Nitric acid storage Tank 312: Process waste tank Tank 313: Process waste tank

#### Technical Approach

Building 883 will be closed as a Type 2 Facility using a project specific DPP. Building 879 and Tanks 016, 312, and 313 will be closed as Type 2 facilities using standard RSOPs. The remaining facilities will be closed as Type 1 facilities. The closure strategy is to remove Building 883, the other facilities, and the tanks by working several decommissioning tasks in parallel.

Authorization Basis: Building 883 is currently operating under the Site-wide SAR. Although the current AB is sufficient to perform a large number of decommissioning activities, it will require revision in order to perform predemolition structural modifications, address scenarios involving ducts and plenums, and address temporary conditions and systems. The current plan is to use the RSOPs and the DPP to cover decommissioning activities. For activities not covered by a RSOP, a HASP will be prepared.

Personnel relocation: Personnel relocation is not an issue because only operations staff are located in Building 883. Temporary shower and locker rooms may be provided during D&D.

Security Requirements: Once all classified materials are verified as having been removed, security control requirements will be eliminated. This will allow the use of non-cleared personnel for hazard elimination, equipment removal, and demolition.

Decontamination: Interior surfaces of large equipment will be inspected to assure that there is no bulk uranium or other material present. No decontamination of massive equipment will be attempted. Fixatives will be applied to external surfaces and easily accessible interior surfaces prior to packaging for shipment. Fogs and fixatives will be applied to smaller pieces of equipment for contamination control during removal, size reduction and packaging operations. Decontamination of structures, including facility overheads, will be accomplished using standard decontamination processes.

Demolition: The demolition strategy for Building 883 is to use a fixed price subcontractor. The remaining Type 2 facilities will be surveyed decontaminated as required, and demolished using standard industrial techniques. Above ground



tanks will be sold for reuse by a fixed-price demolition subcontractor or demolished if not saleable. A fixed price subcontractor, using standard industrial techniques, will demolish miscellaneous structures.

#### Hazards

Hazards associated with the closure of the Facility Group include industrial hazards, and hazards associated with uranium contamination.

# **Assumptions**

Building 883 will be closed using a project specific DPP.

## Project Risks

No specific project risks have been identified for the tanks and other structures. Project risks associated with closure of Building 883 will be provided in a separate Hazards Assessment Analysis after the RLC report is complete.

## **Schedule**

Closure activities for Facility Group 25 will be planned and executed, based on the Site's 05-closure plan. Attachment 3 provides the summary schedule for closure. Landlord and maintenance activities will complete in the 4<sup>th</sup> quarter of FY03. Stabilization and hazard removal started in the 2<sup>nd</sup> quarter of FY01. But with the limited funding in the 800 Area, these activities are at a minimum. The baseline schedule projects a completion date in the 3<sup>rd</sup> quarter of FY03. The working schedule shows a delay at this time of 10-12 months. This delay, if not corrected, will not impact the final demolition completion date.

## Opportunities for Acceleration

The baseline schedule for Group 25 is to start dismantlement and decommissioning in the 1<sup>st</sup> quarter of FY04, with a scheduled completion date of 4<sup>th</sup> quarter of FY05. The working schedule is working on an accelerated schedule of being complete with the decommissioning of the 883 Facility Group at the end of the 1<sup>st</sup> quarter of FY05.

Table A

B865 Facility Group				<b>B883 Facility Group</b>				
	Sq. Ft.	Туре		Fac. # S	c. # Sq. Ft.		Type	
					00.500	2		
865	38,250	2			60,500	2		
827	384	1		883C	452	1_		
C-865	300	1		879	3,640	2		
866	418	2	<u> </u>	T883A	1,960	1_	<u> </u>	
867	2,809	2	<u> </u>	T883B	<u> 1,960</u>	1	<u> </u>	
868	2,133	2		T883C	1,960	1		
863	400	1		T883D	1,960	1	ļ.,_	
TK 25	133 Cu. Ft	1	AG		133 Cu. Ft.		UG	
Tank 010	266 Cu. Ft.	1	AG		266 Cu. Ft.		AG	
Tank	133 Cu. Ft.	1	AG	Tank 016	333 Cu. Ft.	2	UG	
024 Tank	?	1	AG	Tank 020	66 Cu. Ft.	1	AG	
026 Tank	?	1	AG	Tank 021	66 Cu. Ft.	1	AG	
252 TOTAL S	44 604	<del> </del>	+	Tank 312	?	2	UG	
TOTALS	44,094	_	1	Tank 313		2	UG	
			<del> </del>	TOTALS				

1EE	800 Area
1EEA	800 Area - Project Management
1EEB	800 Area - Facilities Management
	Facility Group 24 Landlord (881)
1EEB01	
1EEB03	Facility Group 25 Landlord (883)
1EEB05	Facility Group 26 Landlord (865)
1EEB06	Facility Group 27 Landlord (886)
1EEB08	Facility Group 28 Landlord (800)
1EEC	800 Area - Deactivation
1EEC01	Facility Group 24 Stab/Hazard Removal (8
1EEC03	Facility Group 25 Stab/Hazard Removal (8
1EEC05	Facility Group 26 Stab/Hazard Removal (8
1EEC06	Facility Group 27 Stab/Hazard Removal (8
1EEC08	Facility Group 28 Stab/Hazard Removal (8
1EED	800 Area - Decommissioning
1EED01	Facility Group 24 Decommissioning (881)
1EED0101	B-881 Decommissioning
1EED0102	B-881F Decommissioning
1EED0103	B-881G Decommissioning
1EED0104	B-881H Decommissioning
1EED0105	B830 Decommissioning
1EED0106	B-890 Decommissioning
1EED0107	B-885 Decommissioning
1EED0108	B-887 Decommissioning
1EED0109	B-882 Decommissioning
1EED0110	881C Decommissioning
1EED0111	881S1 Decommissioning
1EED0112	881S2 Decommissioning
1EED0113	881S3 Decommissioning
1EED0114	882 Pad Decommissioning
1EED0115	890 Pad Decommissioning
1EED0116	881 Tunnel Decommissioning
1EED0117	Facility Group 25 Tank Decommissioning (
1EED03	Facility Group 25 Decommissioning (883)
1EED0301	B-883 Decommissioning
1EED0302	B-883C Decommissioning
1EED0303	B-879 Decommissioning
1EED0304	T-883A Decommissioning
1EED0305	T-883B Decommissioning
1EED0306	T-883C Decommissioning
1EED0307	T-883D Decommissioning
1EED0308	Facility Group 25 Tank Decommissioning (
1EED0308	Facility Group 26 Decommissioning (865)
	B-865 Decommissioning
1EED0501	
1EED0502	C-865 Decommissioning
1EED0503	B-827 Decommissioning
1EED0504	B-866 Decommissioning

100	PERSONAL,
1EED0505	B-867 Decommissioning
1EED0506	B-868 Decommissioning
1EED0507	B-863 Decommissioning
1EED0507	Facility Group 26 Tank Decommissioning (
1EED06	Facility Group 27 Decommissioning (886)
1EED0601	B-886 Decommissioning
1EED0602	B-875 Decommissioning
1EED0602	B-880 Decommissioning
	B-828 Decommissioning
1EED0604	T-886A Decommissioning
1EED0605	T-886B Decommissioning
1EED0606	
1EED0607	T-886C Decommissioning
1EED0608	T-886D Decommissioning
1EED0609	T-888A Decommissioning
1EED0610	Facility Group 27 Tank Decommissioning (
1EED08	Facility Group 28 Decommissioning (800)
1EED0801	B-850 Decommissioning
1EED0802	B-864 Decommissioning
1EED0803	B-869 Decommissioning
1EED0804	B-884 Decommissioning
1EED0805	B-888 Decommissioning
1EED0806	B-891 Decommissioning
1EED0807	B-880C Decommissioning
1EED0808	T-881A Decommissioning
1EED0809	T-881B Decommissioning
1EED0810	T-891B Decommissioning
1EED0811	T-891C Decommissioning
1EED0812	T-891D Decommissioning
1EED0813	T-891E Decommissioning
1EED0814	T-891F Decommissioning
1EED0815	T-891G Decommissioning
1EED0816	T-891O Decommissioning
1EED0817	T-891P Decommissioning
1EED0818	T-891Q Decommissioning
1EED0819	T-891R Decommissioning
1EED0820	T-891V Decommissioning
1EED0821	T-893A Decommissioning
1EED0822	T-893B Decommissioning
1EED0823	T-900A Decommissioning
1EED0824	T-900B Decommissioning
1EED0825	Facility Group 28 Tank Decommissioning (



## 800 Area Work Breakdown Structure (WBS)

Closure activities in the 800 Area are conducted under WBS Element EE.

WBS sub-element EEA - Project Management - involves the overall management of the WBS element to include project controls, administration, subcontracting, and procurement. In addition, project management includes the necessary management and oversight of all work activities under the WBS element.

WBS sub-element EEB - Facilities Management - consists of all the activities to ensure that the facilities and immediate areas around the facilities are maintained in a safe, secure, environmentally compliant and operable status, until such times as the facilities are no longer needed. Facility management functions also ensure that the areas are prepared for transition to building stabilization and decommissioning. This includes area clean up and housekeeping. The five major activities necessary to ensure safe and compliant operations include:

- Compliance surveillance: Surveillance will be conducted to ensure safety systems and regulatory compliance are maintained. This includes daily or weekly inspection of RCRA regulated units, air-monitoring systems, radiological surveys, and fire suppression systems as required.
- Maintenance: Maintenance will focus on building systems to ensure the facilities can be entered and work can be conducted without interruption. This is a minimal maintenance support package which only addresses the required activities to maintain the safety envelope. As areas in each facility are closed, systems and support will also be curtailed and resources will be shifted to closing other areas.
- Operations Management: The scope for operations management activities includes ensuring building functional operations, surveillance, and maintenance activities are carried out in an adequate manner, thus maintaining safe operations and regulatory compliance of the facilities. Also included is integration management and support as required of tenant and project activities performed within the area.
- Operations Technical Support: This includes the support functions required to complete work at the site and includes radiological engineering, health and safety, quality assurance, etc. These disciplines will be required when efforts begin to change the safety basis documents for the buildings.
- Safety Basis Revisions: Updates to the Site Safety analysis Report (SAR) to address new activities are included as part of this function.

WBS sub-element EEC - Building Stabilization/Deactivation - includes the activities necessary to remove a building from operation and place the building in a safe and stable condition that eliminates or mitigates hazards and ensures adequate protection to workers, the public and the environment. Stabilization occurs in buildings that do not have a deactivation phase, generally Type 1 and Type 2 facilities. Stabilization potentially results in additional baseline cost reductions by eliminating or reducing the need for surveillance and maintenance activities.

Stabilization includes the tasks of characterization, planning and project management, administrative stabilization, Authorization Basis (AB) changes, and physical stabilization. Stabilization activities remove the Facility Group of buildings from operation, and prepare them for turnover - possibly to a subcontractor - for decommissioning or conversion/release to a new use meeting applicable safeguards, hazard category, and other applicable criteria.

Specific stabilization activities include preparing Integrated Work Control Packages (IWCP), performing removal of hazardous and non-hazardous materials, uranium holdup removal, and reduction of building fire loading. Activities may include inventory and removal of unattached hazardous materials from the building and project areas, such as regulated hazardous chemical, beryllium, gas cylinders, draining fluids from equipment, asbestos abatement and/or encapsulation, and repack of existing waste packages. RCRA units may be placed into RCRA stable condition or RCRA unit closure may occur. Disposition of excess property, in accordance with government property disposition requirements may be performed.

WBS Sub-element EED - Decommissioning - is the activity necessary to remove a building from the Site in a safe manner that minimizes hazards and ensures adequate protection to workers, the public and the environment. Decommissioning includes the tasks of characterization, site preparation, decontamination, dismantlement, and demolition. Regulatory approval for decommissioning precedes the physical execution of decommissioning tasks. The decommissioning process, as implemented at Rocky Flats, results in each building being dispositioned in accordance with the applicable regulations and requirements, whether as waste, recycle, or reuse.

Characterization supplies the data necessary to minimize hazards and ensure adequate protection to workers, the public, and the environment and has four phased elements: Scoping, Reconnaissance, In-process, and Pre-demolition Survey (PDS) (including independent verification, if required). Decommissioning characterization does not cover the characterization associated with individual hazardous substance site (IHSS) remediation, which is part of Environmental Restoration (ER), or any process characterization of special nuclear material (SNM).

Physical site preparation includes the establishment of laydown, shipping and material processing areas, set-up of size reduction, monitoring and waste staging areas, step-off pads, and the removal of stored wastes.

Potential decontamination areas include building interior/exterior surfaces or other fixed structures, equipment, drains, gloveboxes, tanks, process piping, ducting. Removal of hazardous and toxic substances may be performed as a decontamination activity. Dismantlement involves the removal of equipment and piping. Dismantlement may also include the removal of interior walls, exterior walls and roofing. In general, decontamination and dismantling activities will be conducted simultaneously. All of the 800 Area projects will perform decontamination activities within the RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities.



Demolition is performed on the walls, roof, non-structural and structural components, foundations and connecting structures in accordance with the RFCA decision document. All of the 800 Area projects will perform demolition activities in accordance with the RSOP for Facility Disposition.

# 800 Area Specific Assumptions

The decommissioning sequence for the 800 Area is based on:

- 1. Early elimination of hazards.
- 2. Targeting high project risk activities for early completion.
- 3. The need to use facilities to support other activities, such as waste storage and personnel relocation.
- 4. The applications of funds that become available, to the acceleration of critical path activities, and to the early closure of type 1 facilities.

Closure of facilities will be conducted in the following sequence.

## General Type 1 Facility Decommissioning Sequence

- Removal of loose equipment and materials, desk, tables, chairs, ship equipment, tools, supplies, and trash
- Tenant relocation and the removal of offices
- Perform Reconnaissance Level Characterization (RLC) planning, sampling, and cost estimating tasks.
- Reduction of utility systems as appropriate, reducing landlord and maintenance costs
- Shutting down high maintenance, high cost systems, securing the facility
- Write RLC report. Complete Rocky Flats Closure Agreement (RFCA) activities and receive demolition approval.
- Prepare Statement of Work for demolition and dismantlement

#### General Type 2 Facility Decommissioning Sequence:

- Removal of loose equipment, desks, cabinets, etc.
- Perform RLC activities to indicate areas of the facility/structure requiring decontamination activities.
- Equipment/systems will be dismantled/removed in accordance with IWCP and RSOP procedures. The electrical systems supplying lighting and distribution will remain in place. The ventilation systems will be re-configured to support decontamination activities.



- Asbestos removal internal to the structure will be completed, and the areas requiring decontamination will be isolated from the balance of the structure to allow decontamination activities and asbestos abatement activities.
- Room or area walls will be used as containment barriers, or temporary containment barriers will be installed to ensure that decontamination activities will be isolated from the balance of the structure. As necessary, mobile HEPA ventilation will be installed for ventilation of areas being decontaminated.
- Following equipment removal/dismantlement, remaining electrical systems (such as conduit, switches, and distribution of electricity) will be removed. Temporary electrical services will be installed as required. Lighting and ceiling fixtures will be removed and packaged for disposal as appropriate.
- Remaining safety systems will be removed to expose areas requiring decontamination activities, and any necessary modifications performed to replace required safety items.
- Remaining utility supply systems (water, air, etc.) will be removed as required, and temporary services for support of decontamination activities installed to the area.
- Upper walls and ceiling areas will be decontaminated first.
- Lower walls will be decontaminated and preliminary surveys completed.
- Floor areas will be decontaminated utilizing appropriate methods and equipment required by the extent of the contamination.
- Initial final Pre-Demolition Surveys (PDS) will be completed.
- Areas exhibiting residual contamination following the initial final surveys will be physically isolated, decontaminated, and re-surveyed.
- Final surveys of interior surface areas will be performed.
- Removal of asbestos bearing materials in the roofs will be accomplished as appropriate.
- Final Surveys (PDS) of the building structure (interior and exterior) will be completed.
- Facility/structure will be "cold-closed" or prepared for immediate demolition/removal under the Facility Disposition protocols.

There are radioactive concerns in several of the 800 Area facilities. High contamination areas (HCA) will be dispositioned similarly throughout the facilities (881, 883, 865, 828, 875). Whenever the contamination that is discovered exceeds the 10 CFR 835 definition of a High Contamination Area, HCA radiation operational protocols will be utilized to first decontaminate the area and remove the source. At a minimum the area will be lowered to below the threshold for HCA. If this cannot be accomplished through standard work practices of decontamination, each area will be evaluated on a case by case basis in determining if a more aggressive method is warranted.

## Environmental Restoration Interface

The 800 Area Decontamination & Demolition activity interfaces with ER as follows:

- The ER schedule will be integrated with the decommissioning schedule to allow for the planning and initiation of ER characterization activities during facility decommissioning.
- Demolition and ER activities will proceed as an uninterrupted two-phase operation culminating in closeout of the associated IHSSs, PACs, and Under Building Contamination sites.

Both groups will work closely to ensure the overall scope is completed efficiently and effectively.

Environmental Restoration has established guidelines for D&D activities to assure that, upon completion of D&D, ER is left with a technically feasible final closure. These guidelines have been incorporated into the closure strategy and include:

- D&D requirements for process waste system removal and isolation
- Depth of utility removal
- Sealing of remaining underground utilities
- Survey and documentation requirements for utility termination points
- Requirements for sanitary sewer line flushing and sealing
- Depth of structure removal requirements for contaminated and non-contaminated structures
- Requirements for slab removal
- Requirements for non-contaminated tunnels, vaults, tanks, etc. that could provide a surface water pathway
- Requirements for fence posts and utility posts in contaminated and noncontaminated areas
- Requirements for sidewalks
- Requirements for above ground tanks, below ground direct buried tanks, tanks within structures, tank structures separate from other buildings, and lines and valves between tanks and buildings
- RCRA closure requirements
- Characterization requirements
- Grading and vegetation requirements

#### Personnel Relocation

Most prior-use manufacturing facilities (for example, Building 865) house only the minimum number of people required to execute closure or operations. Facilities of concern, relative to personnel/function displacement, within the 800 Area include:

- Building 850, which houses KH Team administrative functions, including procurement and accounting.
- Building 881, which houses the central computing facility and staff. This activity is slated for movement to the Federal Center in Lakewood.

Finding space for displaced personnel will not be an insurmountable issue. Overall RISS relocation activities will be evaluated on a periodic basis to assure that adequate temporary offices are established, if required.

# 800 Area Facility Characterization Strategy

Approaches to property removal, facility stabilization, decontamination, and demolition, and related controls will be developed based on thorough characterization for all of the 800 Facility Groups. Many of the facilities will be characterized and dispositioned in accordance with the Property Release Evaluation. Any Pre-demolition Surveys will be performed in time to support the demolition of the facility. Table B details the facilities within the 800 Area and the anticipated characterization and demolition dates based on the 2005-working plan.

In an attempt to expedite the decommissioning schedule, a two-phase estimate is being developed for each of the five 800 Facility Groups to initiate characterization activities. The first phase is for the characterization team to develop the plans, Health and Safety Plan (HASP), mapping and other packages to start the fieldwork. This work will be prioritized and started if there is available funding. The second phase is the actual sampling and report writing.